

## Quick View for Earth Processes Along the C&O Canal

### Materials/ Resources

#### Teacher Materials

- Binder with lesson materials (pictures of flooding, signs, etc.)

#### Student Materials

- Clipboards (6)
- Pencils
- Observation sheets

### Safety

- Students are to watch for cars and bikes when crossing the parking lot.
- Students are to use caution around water areas.
- Students should not wade into the water. Students should remain on the shore at all times.
- Students are not to walk on logs that have fallen into the water.
- Students should not handle living things, plants or animals, unless directed to do so by a teacher.

### Engage

1. Gather the students at the Town of Williamsport bulletin board next to the Cushwa Basin access road. Point out the flood gauge on the side of the warehouse.
2. **Ask:** “Why is there a flood gauge on the side of the warehouse?” (to measure flooding height)
3. Walk to the left side of the warehouse to see the flood markings. Discuss how powerful water can be. Share the pictures provided in the binder. Have the students use the pictures to help them think about what changes might have occurred when the canal floods.
4. Introduce the focus question.
  - **How do the processes of weathering, erosion, and deposition contribute to the rapid and slow changes along the C&O Canal?**

Review any important vocabulary from the focus questions. Have the students share what they know about weathering, erosion, and deposition. Remind the students of what they learned in science during unit 1 instruction.

**Note:** Students who have not received science instruction regarding weathering and erosion will most likely have no prior knowledge of the processes that change Earth's surface.

### Explore

5. Tell the students they will be looking for evidence of weathering, erosion, and deposition in different areas along the C&O Canal. **First**, students will make observations at the basin with the guidance of the teacher. **Second**, the students will explore independently (with adult supervision) the upstream side of the aqueduct.

#### Guided Exploration

5. Have the students make observations about the shoreline of the basin.

**Ask:** "What evidence do you see of weathering?"

"What evidence do you see of erosion and deposition?"

"Which natural agents do you believe are responsible for weathering, erosion, and deposition in this area?"

"Do you believe that the changes have occurred slowly, rapidly, or both? Explain why."

"What could we do to control erosion and deposition along the shoreline?"

### **Independent Exploration**

6. Have the students make observations about the area upstream from the aqueduct. Students are to work independently in small groups with adult supervision. The teacher should visit groups and continue to use probing questions. Encourage the students to record their observations on the map provided on the clipboard.

**Ask:** “What evidence do you see of weathering?”

“What evidence do you see of erosion and deposition?”

“Which natural agents do you believe are responsible for weathering, erosion, and deposition in this area?”

“Do you believe that the changes have occurred slowly, rapidly, or both? Explain why.”

“What could we do to control erosion and deposition in this area?”

7. The students gather to share their observations. Use the probing questions to guide the discussion.

**Ask:** “What evidence do you see of weathering?”

“What evidence do you see of erosion and deposition?”

“Which natural agents do you believe are responsible for weathering, erosion, and deposition in this area?”

“Do you believe that the changes have occurred slowly, rapidly, or both? Explain why.”

“What could we do to control erosion and deposition in this area?”

8. Revisit focus question.

- **How do the processes of weathering, erosion, and deposition contribute to the rapid and slow changes along the C&O Canal?**

Have the students share their ideas.

How do the processes  
of **weathering,**  
**erosion,** and  
**deposition**  
contribute to the  
rapid and slow  
changes along the  
C&O Canal?